USPS-LR-L-85

Periodicals Container Cost Analysis

Preface

This is a Category 2 library reference sponsored by witness Talmo (USPS-T-27). This library reference documents the test year cost differential between Periodicals flat-shaped mail prepared on pallets and in sacks. This library reference relies upon base year mail processing volume-variability factors from witness Van-Ty-Smith (USPS-T-11) as developed in USPS-LR-L-55; pieces-per-container conversion factors from witness Loetscher (USPS-T-28) as developed in USPS-LR-L-91; and test year cost and volume factors from witness Smith (USPS-T-13) as developed in USPS-LR-L-52 and USPS-LR-L-53. The estimates contained in this library reference are supplied to witness Tang (USPS-T-35) to support computation of container surcharges. This library reference updates a previous study (USPS-LR-K-85), *Periodicals Pallet Cost Analysis*, sponsored by witness Cutting (USPS-T-26) in Docket No. R2005-1.

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I. Introduction

This library reference provides the supporting documentation and analyses used to estimate the test year unit cost differential between mailings prepared on pallets and mailings prepared in sacks for Periodicals flat-shaped mail. This is a Category 2 library reference sponsored by witness Talmo (USPS-T-27). The estimates contained in this library reference are supplied to witness Tang (USPS-T-35).

This library reference relies on other witnesses' library references and testimony in this docket and in previous dockets. The following sources are used:

- USPS-LR-L-52 (Smith) for test year piggyback factors by cost segment, premium pay factors and volume ratios by subclass, and clerk and mail handler labor rates
- USPS-LR-L-53 (Smith) for test year piggyback factors by mail processing cost pool, and unit costs by mail processing cost pool, subclass and shape
- USPS-LR-L-55 (Van-Ty-Smith) for base year mail processing volume-variability factors by cost pool
- USPS-LR-L-91 (Loetscher) for piece per container for flat-shaped Periodicals
- USPS-LR-H-111/R97-1 (Smith) for sacks per other wheeled container
- USPS-T-26/R2000-1 (Eggleston), USPS-T-27/R2000-1 (Crum), and the Planning Guidelines for operations productivities

II. Organization

This library reference consists of three sheets in the Excel workbook 'LR-L-85.xls.' The sheet 'Parameters' contains the parameters used in the cost analysis. The sheet 'Variability' contains the calculation of the composite volume variability factor for bundle distribution. The sheet 'Table 1' contains the cost calculations. Table 1 provides the major results of the study; it is reproduced below.

III. Methodology

Mail processing activities are identified that follow the path of Periodicals pieces in sacks and pallets from unloading vehicles through bundle distribution. For each activity, an average hourly wage is divided by the productivity (containers per hour) for the activity to obtain cost per container. The productivities have been adjusted to reflect marginal productivities by dividing by the appropriate volume variablility factor. Cost per container estimates are adjusted by the appropriate piggyback and premium pay factors. They are next divided by pieces per container to obtain cost per piece by activity. Cost per piece by activity is summed across activities for sacks and pallets separately. This yields unit cost estimates for handling sacks and pallets.

Table 1: Flat-Shaped Periodicals Container Cost Analysis, Test Year 2008

		[1] Productivities		[2] Conversions		[3]	[4]	[5]	[6] Unit Costs	[7]
	Activity	Value	Units	Value	Units	Labor Rate	Piggyback Factor	Premium Pay Factor	Per Container	Per Piece
Sacks	Unload OWC	24.506	OWC/Hr	26.500	Sacks/OWC	37.823	1.6274	1.0166	$0.0957	$0.0021
	Move OWC to Bundle Sort Op.	26.259	OWC/Hr	26.500	Sacks/OWC	37.823	1.6274	1.0166	$0.0894	$0.0020
	Dump Sacks at Bundle Sort	128.948	Sacks/Hr	1.000		37.823	1.6274	1.0166	$0.4822	$0.0107
	Empty Sack Handling	194.071	Sacks/Hr	1.000		37.823	1.6274	1.0166	$0.3204	$0.0071
	Empty OWC Handling	26.259	OWC/Hr	26.500	Sacks/OWC	37.823	1.6274	1.0166	$0.0894	$0.0020
									$1.0771	$0.0239
Pallets	Unload Pallet	14.424	Pallets/Hr	1.000		37.823	1.6274	1.0166	$4.3110	$0.0026
	Move Pallet to Bundle Sort Op.	11.294	Pallets/Hr	1.000		37.823	1.6274	1.0166	$5.5055	$0.0034
	Dump Pallet	7.368	Pallets/Hr	1.000		37.823	1.6274	1.0166	$8.4394	$0.0051
	Empty Pallet Handling	194.071	Pallets/Hr	1.000		37.823	1.6274	1.0166	$0.3204	$0.0002
									$18.5762	$0.0113
									Cost Difference:	$0.0126

Sources:
[1] Productivities obtained from USPS-T-26/R2000-1, USPS-T-27/R2000-1, & PGLs, adjusted with variability factors from USPS-LR-L-55/R2006-1
[2] Conversions obtained from USPS-LR-H-111/R97-1
[3] Labor Rate obtained from USPS-LR-L-52/R2006-1
[4] Piggyback Factor obtained from USPS-LR-L-52/R2006-1
[5] Premium Pay Factor obtained from USPS-LR-L-52/R2006-1
[6] = ([4] + [5] - 1) x ([3] / ([1] x [2]))
[7] = [6] divided by pieces per container; 45.1 pieces per sack and 1641.6 pieces per pallet, from USPS-LR-L-91/R2006-1.